ProCurve
Networking by HP

ProCurve Switch 5300xl Series

Designed to accommodate the most demanding network needs, the ProCurve Switch 5300xl series offers scalable Layer 2, 3, and 4 switching in compact 4- or 8-slot modular form factors. These secure, convergence-ready switches provide flexibility, high port density, free software updates, and a lifetime warranty. The easy-to-use ProCurve Switch 5300xl series provides third-generation ASIC technology, with excellent investment protection and return on IT.

ProCurve Switch 5308xl
(J4819A)

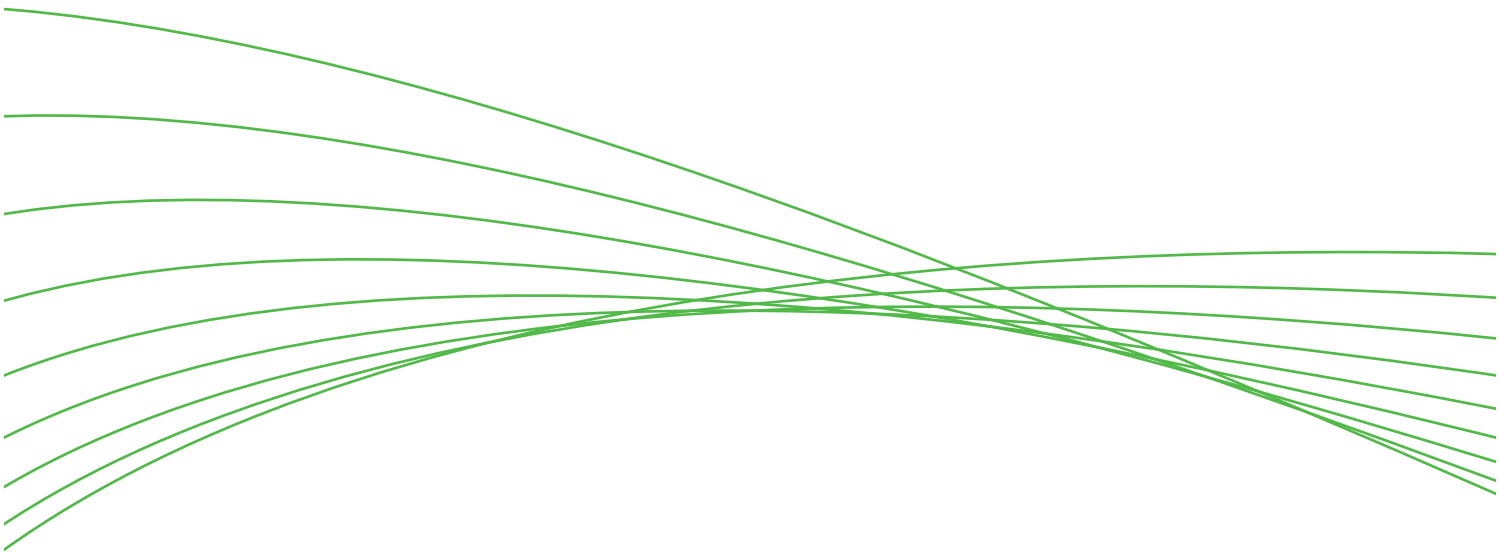
ProCurve Switch 5308xl-48G
(J8167A)

ProCurve Switch 5372xl
(J4848B)

ProCurve Switch 5304xl
(J4850A)

ProCurve Switch 5304xl-32G
(J8166A)

ProCurve Switch 5348xl
(J4849B)



hp invent

Features and benefits

Industry-leading warranty

Performance

- **Architecture**: up to 76.8 Gbps crossbar switching fabric provides wire-speed intra- and inter-module switching with up to 48 million pps throughput built on ProCurve custom-designed ASIC technology

Resiliency and high availability

- **Router redundancy (XRRP)**: allows groups of two routers to dynamically back each other up to create highly available routed environments
- **IEEE 802.1s Multiple Spanning Tree**: provides high link availability in multiple VLAN environments by allowing multiple spanning trees
- **IEEE 802.1w Rapid Convergence Spanning Tree Protocol**: increases network uptime through faster recovery from failed links
- **IEEE 802.3ad Link Aggregation Control Protocol (LACP) and ProCurve trunking**: support up to 36 trunks, each with up to 8 links (ports) per trunk; trunking across modules is supported
- **Hot-swappable modules**: permit modules, mini-GBICs, and one of the power supplies in a redundant power supply configuration to be added or swapped without interrupting the network
- **Optional redundant power supply**: provides uninterrupted power; allows hot-swapping of one of the two supplies when installed

Layer 2 switching

- **ProCurve switch meshing**: dynamically load-balances across multiple active redundant links to increase available aggregate bandwidth
- **VLAN support and tagging**: support complete IEEE 802.1Q (4,096 VLAN IDs) and 256 VLANs simultaneously
- **IEEE 802.1v protocol VLANs**: isolate select non-IPv4 protocols automatically into their own VLANs
- **GARP VLAN Registration Protocol**: allows automatic learning and dynamic assignment of VLANs

Layer 3 services

- **UDP helper function**: UDP broadcasts can be directed across router interfaces to specific IP unicast or subnet broadcast addresses and prevent server spoofing for UDP services such as DHCP

Layer 3 routing

- **Layer 3 IP routing**: provides routing of IP at media speed; supports static routes, RIP, RIPv2, and OSPF
- **OSPF-ECMP**: enables multiple equal-cost links in OSPF environment to increase link redundancy and scale bandwidth

Security

- **Virus throttling**: detects traffic patterns typical of WORM-type viruses and either throttles or entirely prevents the ability of the virus to spread across the routed VLANs, without requiring external appliances
- **ICMP throttling**: defeats ICMP denial-of-service attacks by enabling any switch port to automatically throttle ICMP traffic

♦ For as long as you own the product, with next-business-day advance replacement (available in most countries). The following hardware products and their related family modules have a one-year warranty with extensions available: The ProCurve Routing Switch 9300m Series, ProCurve Switch 8100fl Series, ProCurve Access Control Server 745wl, and the ProCurve Network Access Controller 800. Standalone software may have a different warranty duration. For details, refer to the ProCurve Software License, Warranty, and Support booklet at **www.procurve.eu/warranty**

- **Multiple user authentication methods**:
  - **IEEE 802.1X**: industry-standard way of user authentication using an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server
  - **Web-based authentication**: similar to IEEE 802.1X, provides a browser-based environment to authenticate clients that do not support the IEEE 802.1X supplicant
  - **MAC-based authentication**: client is authenticated with the RADIUS server based on client's MAC address
- **Authentication flexibility**:
  - **Multiple IEEE 802.1X users per port**: provides authentication of multiple IEEE 802.1X users per port; prevents user "piggybacking" on another user's IEEE 802.1X authentication
  - **Concurrent IEEE 802.1X and Web or MAC authentication schemes per port**: switch port will accept any of IEEE 802.1X and either Web or MAC authentications
- **Access control lists (ACLs)**: provide IP Layer 3 filtering based on source/destination IP address/subnet and source/destination TCP/UDP port number
- **Identity-driven ACL**: enables implementation of a highly granular and flexible access security policy specific to each authenticated network user
- **Port security**: allows access only to specified MAC addresses, which can be learned or specified by the administrator
- **MAC address lockout**: prevents configured particular MAC addresses from connecting to the network
- **Source-port filtering**: allows only specified ports to communicate with each other
- **TACACS+**: eases switch management security administration by using a password authentication server
- **Secure Shell (SSHv2)**: encrypts all transmitted data for secure, remote command-line interface (CLI) access over IP networks
- **Secure Sockets Layer (SSL)**: encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- **Secure FTP**: allows secure file transfer to/from the switch; protects against unwanted file downloads or unauthorized copying of switch configuration file
- **Secure access to manage the ProCurve Switch 5300xl series**: all access methods—CLI, GUI, or MIB—are securely encrypted through SSHv2, SSL, and/or SNMPv3
- **Switch management logon security**: can require either RADIUS or TACACS+ authentication for secure switch CLI logon

Convergence

- **IP multicast routing (PIM Dense)**: routes IP multicast traffic using the PIM Dense routing protocol
- **IP multicast snooping and data-driven IGMP**: automatically prevents flooding of IP multicast traffic
- **LLDP-MED (Media Endpoint Discovery)**: a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones

Quality of Service (QoS)

- **Layer 4 prioritization**: enables prioritization based on TCP/UDP port numbers
- **Traffic prioritization (IEEE 802.1p)**: allows real-time traffic classification into 8 priority levels mapped to 4 queues
- **Class of Service (CoS)**: sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), L3 protocol, TCP/UDP port number, source port, and DiffServ

Features and benefits (continued)

- **Bandwidth shaping**:
  - **Rate limiting**: per-port ingress-based enforced bandwidth maximums
  - **Guaranteed minimums**: per-port, per-queue egress-based guaranteed bandwidth minimums

Manageability

- **User-driven port configuration support**: switch port configuration responds to RADIUS-stored user attributes for QoS and rate limiting when that user authenticates; these attributes are then determined by the user, not the switch port
- **RMON, XRMON, and sFlow**: provide advanced monitoring and reporting capabilities for statistics, history, alarms, and events
- **IEEE 802.1AB Link Layer Discovery Protocol (LLDP)**: automated device discovery protocol for easy mapping by network management applications
- **Friendly port names**: allow assignment of descriptive names to ports
- **ProCurve/IEEE Auto-MDIX**: automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- **Dual flash images**: provides independent primary and secondary OS and configuration files for backup while upgrading or fine-tuning the switch configuration
- **Multiple configuration files**: allow a config file to be stored for each flash image
- **Troubleshooting**: ingress/egress port monitoring enables network problem-solving
- **Custom banner**: displays security policy when users log in to the switch

Services

ProCurve Switch 5304xl-32G

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE241E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE242E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE243E)
- 3-year, 24x7 software phone support, software updates (UE263E)
- Installation with HP-provided configuration, system-based pricing (U4832E)
- Installation with minimum configuration, system-based pricing (U4828E)

ProCurve Switch 5304xl

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE241E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE242E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE243E)
- 3-year, 24x7 software phone support, software updates (UE263E)
- Installation with HP-provided configuration, system-based pricing (U4832E)
- Installation with minimum configuration, system-based pricing (U4828E)

ProCurve Switch 5300xl Series

ProCurve Switch 5308xl-48G

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE244E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE245E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE246E)
- 3-year, 24x7 software phone support, software updates (UF787E)
- Installation with HP-provided configuration, system-based pricing (U4832E)
- Installation with minimum configuration, system-based pricing (U4828E)

ProCurve Switch 5308xl

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE244E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE245E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE246E)
- 3-year, 24x7 software phone support, software updates (UF787E)
- Installation with HP-provided configuration, system-based pricing (U4832E)
- Installation with minimum configuration, system-based pricing (U4828E)

ProCurve Switch 5348xl

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE241E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE242E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE243E)
- 3-year, 24x7 software phone support, software updates (UE263E)
- Installation with HP-provided configuration, system-based pricing (U4832E)
- Installation with minimum configuration, system-based pricing (U4828E)

ProCurve Switch 5372xl

- 3-year, 4-hour onsite, 13x5 coverage for hardware (UE244E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware (UE245E)
- 3-year, 4-hour onsite, 24x7 coverage for hardware, 24x7 software phone support (UE246E)
- 3-year, 24x7 software phone support, software updates (UF787E)
- Installation with HP-provided configuration, system-based pricing (U4832E)
- Installation with minimum configuration, system-based pricing (U4828E)

Check **www.procurve.eu/services** for part numbers and service-level descriptions. For details about services and response times in your area, please contact your local HP sales office.

ProCurve Switch 5300xl Series

Specifications

	ProCurve Switch 5308xl (J4819A)	ProCurve Switch 5308xl-48G (J8167A)	ProCurve Switch 5372xl (J4848B)
Included accessories		3 ProCurve Switch xl 16-Port 10/100/1000 Modules (J4907A)	3 ProCurve Switch xl 24-Port 10/100-TX Modules (J4820B)
Ports	8 open module slots	5 open module slots 42 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T) Media type: IEEE Auto-MDIX Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 1 RS-232C DB-9 console port 6 dual-personality ports—can use either the 10/100/1000 Gigabit RJ-45 port for UTP cabling or the mini-GBIC port with mini-GBIC transceivers	5 open module slots 72 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX) Media type: ProCurve Auto-MDIX Duplex: half or full
	Supports a maximum of 192 auto-sensing 10/100 ports or 128 auto-sensing 10/100/1000 ports	Supports a maximum of 192 auto-sensing 10/100 ports or 112 auto-sensing 10/100/1000 ports, or a combination	Supports a maximum of 192 auto-sensing 10/100 ports or 128 auto-sensing 10/100/1000 ports
Power supplies	includes: 1 x J4839A 1 open power supply slots	includes: 1 x J4839A 1 open power supply slots	includes: 1 x J4839A 1 open power supply slots
Physical characteristics			
Dimensions (D x W x H)	38.86 x 44.2 x 22.23 cm (15.3 x 17.4 x 8.75 in.) (5U height)	38.86 x 44.2 x 22.23 cm (15.3 x 17.4 x 8.75 in.) (5U height)	38.86 x 44.2 x 22.23 cm (15.3 x 17.4 x 8.75 in.) (5U height)
Weight (fully loaded)	12.0 kg (26.65 lb.)	13.86 kg (30.55 lb.)	14.08 kg (31.05 lb.)
Memory and processor			
Fabric processor type and speed	Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM	Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM	Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM
Module processor type and speed	N/A	ARM9 @ 66 MHz	ARM7 @ 66 MHz
Flash	N/A	128 KB	128 KB
SRAM	N/A	128 KB	128 KB
RDRAM	N/A	18 MB	18 MB
Packet buffer size	36 MB	36 MB	36 MB
Flash capacity	Dual flash	Dual flash	Dual flash
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only		
Performance			
Latency	<6 µs (FIFO)	<6 µs (FIFO)	<6 µs (FIFO)
Throughput	Up to 48 million pps	Up to 48 million pps	Up to 48 million pps
Switch fabric speed	76.8 Gbps	76.8 Gbps	76.8 Gbps
Routing table size	10,000 entries	10,000 entries	10,000 entries
Environment			
Operating temperature	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Operating relative humidity	15% to 95% @ 40°C (104°F), non-condensing	15% to 95% @ 40°C (104°F), non-condensing	15% to 95% @ 40°C (104°F), non-condensing
Non-operating/Storage temperature	–40°C to 70°C (–40°F to 158°F)	–40°C to 70°C (–40°F to 158°F)	–40°C to 70°C (–40°F to 158°F)
Non-operating/Storage relative humidity	15% to 95% @ 65°C (149°F), non-condensing	15% to 95% @ 65°C (149°F), non-condensing	15% to 95% @ 65°C (149°F), non-condensing
Altitude	Up to 4.6 km (15,000 ft.)	Up to 4.6 km (15,000 ft.)	Up to 4.6 km (15,000 ft.)
Electrical characteristics			
Maximum heat dissipation	2,270 kJ/hr (2,152 BTU/hr)	2,270 kJ/hr (2,152 BTU/hr)	2,270 kJ/hr (2,152 BTU/hr)
Voltage	100–127 VAC/200–240 VAC	100–127 VAC/200–240 VAC	100–127 VAC/200–240 VAC
Current	8.2 A/3.8 A	8.2 A/3.8 A	8.2 A/3.8 A
Power consumption	630 W	630 W	630 W
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Safety	cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition		
Emissions	FCC Class A; VCCI Class A; EN 55022/CISPR 22 Class A		

ProCurve Switch 5300xl Series

	ProCurve Switch 5308xl (J4819A)	ProCurve Switch 5308xl-48G (J8167A)	ProCurve Switch 5372xl (J4848B)
Immunity			
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3
Management	ProCurve Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)		

Standards and protocols
(applies to all products)

Device management
HTML and telnet management

General protocols
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.1s Multiple Spanning Trees
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.3ad Link Aggregation Control Protocol (LACP)
IEEE 802.3af Power over Ethernet
IEEE 802.3x Flow Control
RFC 768 UDP
RFC 783 TFTP Protocol (revision 2)
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 951 BOOTP
RFC 1058 RIPv1
RFC 1542 BOOTP Extensions
RFC 2030 Simple Network Time Protocol (SNTP) v4
RFC 2131 DHCP
RFC 2453 RIPv2
RFC 3046 DHCP Relay Agent Information Option

IP multicast
RFC 3376 IGMPv3
RFC 3973 PIM Dense Mode

MIBs
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 1724 RIPv2 MIB
RFC 1850 OSPF v2 MIB
RFC 2021 RMONv2 MIB
RFC 2096 IP Forwarding Table MIB
RFC 2613 SMON MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2665 Ethernet-Like-MIB
RFC 2668 802.3 MAU MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2737 Entity MIB (Version 2)
RFC 2863 The Interfaces Group MIB

Network management
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm), and 9 (events)
RFC 3176 sFlow
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
SNMPv1/v2c/v3
XRMON

OSPF
RFC 2328 OSPFv2

QoS/Cos
RFC 2474 DiffServ Precedence, including 8 queues/port
RFC 2597 DiffServ Assured Forwarding (AF)
RFC 2598 DiffServ Expedited Forwarding (EF)

Security
IEEE 802.1X Port Based Network Access Control
RFC 1492 TACACS+
RFC 2138 RADIUS Authentication
RFC 2866 RADIUS Accounting
Secure Sockets Layer (SSL)
SSHv1/SSHv2 Secure Shell

ProCurve Switch 5300xl Series

Specifications

	ProCurve Switch 5304xl (J4850A)	**ProCurve Switch 5304xl-32G (J8166A)**	**ProCurve Switch 5348xl (J4849B)**
Included accessories		2 ProCurve Switch xl 16-Port 10/100/1000 Modules (J4907A)	2 ProCurve Switch xl 24-Port 10/100-TX Modules (J4820B)
Ports	4 open module slots	2 open module slots 28 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T) Media type: IEEE Auto-MDIX Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only 1 RS-232C DB-9 console port 4 dual-personality ports—can use either the 10/100/1000 Gigabit RJ-45 port for UTP cabling or the mini-GBIC port with mini-GBIC transceivers	2 open module slots 48 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX) Media type: ProCurve Auto-MDIX Duplex: half or full
	Supports a maximum of 96 auto-sensing 10/100 ports or 64 auto-sensing 10/100/1000 ports	Supports a maximum of 96 auto-sensing 10/100 ports or 56 auto-sensing 10/100/1000 ports, or a combination	Supports a maximum of 96 auto-sensing 10/100 ports or 64 auto-sensing 10/100/1000 ports
Power supplies	includes: 1 x J4839A 1 open power supply slots	includes: 1 x J4839A 1 open power supply slots	includes: 1 x J4839A 1 open power supply slots
Physical characteristics			
Dimensions (D x W x H)	38.86 x 44.2 x 13.34 cm (15.3 x 17.4 x 5.25 in.) (3U height)	38.86 x 44.2 x 13.34 cm (15.3 x 17.4 x 5.25 in.) (3U height)	38.86 x 44.2 x 13.34 cm (15.3 x 17.4 x 5.25 in.) (3U height)
Weight (fully loaded)	9.85 kg (21.71 lb.)	11.0 kg (24.25 lb.)	11.2 kg (24.65 lb.)
Memory and processor			
Fabric processor type and speed	Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM	Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM	Motorola PowerPC @ 200 MHz, 12 MB flash, 32 MB SDRAM
Module processor type and speed	N/A	ARM9 @ 66 MHz	ARM7 @ 66 MHz
Flash	N/A	128 KB	128 KB
SRAM	N/A	128 KB	128 KB
RDRAM	N/A	18 MB	18 MB
Packet buffer size	36 MB	36 MB	36 MB
Flash capacity	Dual flash	Dual flash	Dual flash
Mounting	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet (hardware included); horizontal surface mounting only		
Performance			
Latency	<6 µs (FIFO)	<6 µs (FIFO)	<6 µs (FIFO)
Throughput	Up to 24 million pps	Up to 24 million pps	Up to 24 million pps
Switch fabric speed	38.4 Gbps	38.4 Gbps	38.4 Gbps
Routing table size	10,000 entries	10,000 entries	10,000 entries
Environment			
Operating temperature	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Operating relative humidity	15% to 95% @ 40°C (104°F), non-condensing	15% to 95% @ 40°C (104°F), non-condensing	15% to 95% @ 40°C (104°F), non-condensing
Non-operating/Storage temperature	–40°C to 70°C (–40°F to 158°F)	–40°C to 70°C (–40°F to 158°F)	–40°C to 70°C (–40°F to 158°F)
Non-operating/Storage relative humidity	15% to 95% @ 65°C (149°F), non-condensing	15% to 95% @ 65°C (149°F), non-condensing	15% to 95% @ 65°C (149°F), non-condensing
Altitude	Up to 4.6 km (15,000 ft.)	Up to 4.6 km (15,000 ft.)	Up to 4.6 km (15,000 ft.)
Electrical characteristics			
Maximum heat dissipation	2,270 kJ/hr (2,152 BTU/hr)	2,270 kJ/hr (2,152 BTU/hr)	2,270 kJ/hr (2,152 BTU/hr)
Voltage	100–127 VAC/200–240 VAC	100–127 VAC/200–240 VAC	100–127 VAC/200–240 VAC
Current	8.2 A/3.8 A	8.2 A/3.8 A	8.2 A/3.8 A
Power consumption	630 W	630 W	630 W
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Safety	cUL (CSA 950); EN 60950/IEC 60950; NOM-019-SCFI-1994; UL 1950 3rd edition		
Emissions	FCC Class A; EN 55022/CISPR 22 Class A; VCCI Class A		

ProCurve Switch 5300xl Series

ProCurve Switch 5304xl (J4850A)

ProCurve Switch 5304xl-32G (J8166A)

ProCurve Switch 5348xl (J4849B)

Immunity			
EN	EN 55024, CISPR 24	EN 55024, CISPR 24	EN 55024, CISPR 24
ESD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD	IEC 61000-4-2; 4 kV CD, 8 kV AD
Radiated	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m	IEC 61000-4-3; 3 V/m
EFT/Burst	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)	IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
Surge	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC	IEC 61000-4-5; 1 kV/2 kV AC
Conducted	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V	IEC 61000-4-6; 3 V
Power frequency magnetic field	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz	IEC 61000-4-8; 1 A/m, 50 or 60 Hz
Voltage dips and interruptions	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods	IEC 61000-4-11; >95% reduction, 0.5 period; 30% reduction, 25 periods
Harmonics	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2	EN 61000-3-2, IEC 61000-3-2
Flicker	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3	EN 61000-3-3, IEC 61000-3-3

Management	ProCurve Manager Plus; ProCurve Manager (included); command-line interface; Web browser; configuration menu; out-of-band management (serial RS-232C)

Standards and protocols
(applies to all products)

Device management
HTML and telnet management

General protocols
IEEE 802.1D MAC Bridges
IEEE 802.1p Priority
IEEE 802.1Q VLANs
IEEE 802.1s Multiple Spanning Trees
IEEE 802.1w Rapid Reconfiguration of Spanning Tree
IEEE 802.3ad Link Aggregation Control Protocol (LACP)
IEEE 802.3af Power over Ethernet
IEEE 802.3x Flow Control
RFC 768 UDP
RFC 783 TFTP Protocol (revision 2)
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 854 TELNET
RFC 951 BOOTP
RFC 1058 RIPv1
RFC 1542 BOOTP Extensions
RFC 2030 Simple Network Time Protocol (SNTP) v4
RFC 2131 DHCP
RFC 2453 RIPv2
RFC 3046 DHCP Relay Agent Information Option

IP multicast
RFC 3376 IGMPv3
RFC 3973 PIM Dense Mode

MIBs
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 1724 RIPv2 MIB
RFC 1850 OSPF v2 MIB
RFC 2021 RMONv2 MIB
RFC 2096 IP Forwarding Table MIB
RFC 2613 SMON MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2665 Ethernet-Like-MIB
RFC 2668 802.3 MAU MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2737 Entity MIB (Version 2)
RFC 2863 The Interfaces Group MIB

Network management
IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm), and 9 (events)
RFC 3176 sFlow
ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
SNMPv1/v2c/v3
XRMON

OSPF
RFC 2328 OSPFv2

QoS/Cos
RFC 2474 DiffServ Precedence, including 8 queues/port
RFC 2597 DiffServ Assured Forwarding (AF)
RFC 2598 DiffServ Expedited Forwarding (EF)

Security
IEEE 802.1X Port Based Network Access Control
RFC 1492 TACACS+
RFC 2138 RADIUS Authentication
RFC 2866 RADIUS Accounting
Secure Sockets Layer (SSL)
SSHv1/SSHv2 Secure Shell

ProCurve Switch xl Modules and RPS

ProCurve Switch xl 24-Port 10/100-TX Module (J4820B)

with 24 auto-sensing 10/100 ports

Ports
24 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX)
Media type: ProCurve Auto-MDIX
Duplex: half or full

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 0.79 kg (1.76 lb.)

Cabling
Type:
- 10Base-T: Category 3 (or better), 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3 Type 10Base-T
- 100Base-TX: Category 5 (or better), 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3u 100Base-TX

Maximum distance:
100 m

ProCurve Switch xl 4-Port 100/1000-T Module (J4821B)

with 4 auto-sensing 100/1000 ports

Ports
4 RJ-45 auto-sensing 100/1000 ports (IEEE 802.3u Type 100Base-TX; IEEE 802.3ab Type 1000Base-T)
Media type: ProCurve Auto-MDIX
Duplex: 100Base-TX: half or full; 1000Base-T: full only

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 0.68 kg (1.5 lb.)

Cabling
Type:
- 100Base-TX: Category 5 (or better), 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3u 100Base-TX
- 1000Base-T: Category 5 (5E or better recommended), 100 Ω differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000Base-T

Maximum distance:
100 m

ProCurve Switch xl 4-Port Mini-GBIC Module (J4878B)

with 4 open mini-GBIC slots

Ports
4 open mini-GBIC (SFP) slots

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 0.65 kg (1.44 lb.)

ProCurve Switch xl 12-Port 100-FX MTRJ Module (J4852A)

with 12 100Base-FX MTRJ ports

Ports
12 100Base-FX ports (IEEE 802.3u Type 100Base-FX)
Duplex: half or full

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 0.81 kg (1.8 lb.)

Cabling
Type:
- 62.5/125 µm or 50/125 µm (core/cladding) diameter, graded-index, low metal content, multimode fiber optic, complying with ITU-T G.651 and ISO/IEC 793-2 Type A1b or A1a, respectively

Maximum distance:
2 km (full duplex) or 412 m (half duplex)

Services for accessories are covered under the product in which they are installed.

ProCurve Switch xl Modules and RPS

ProCurve Switch xl 24-Port 10/100-TX PoE Module (J8161A)

with 24 auto-sensing 10/100 IEEE 802.3af PoE-ready ports

Ports
24 RJ-45 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX)
Media type: ProCurve Auto-MDIX
Duplex: half or full

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 1 kg (2.23 lb.)

Notes
Requires ProCurve 600 EPS/RPS or 610 EPS to supply PoE power

ProCurve Switch xl 16-Port 10/100/1000 Module (J4907A)

with 14 auto-sensing 10/100/1000 ports and 2 dual-personality ports (10/100/1000 or mini-GBIC)

Ports
14 RJ-45 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T)
Media type: IEEE Auto–MDIX
Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only
2 RJ-45 dual-personality ports

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 0.7 kg (1.55 lb.)

Cabling
Type:
- 10Base-T: Category 3 (or better), 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3 Type 10Base-T
- 100Base-TX: Category 5 (or better), 100 Ω differential unshielded twisted pair (UTP) or shielded twisted pair (STP), complying with IEEE 802.3u 100Base-TX
- 1000Base-T: Category 5 (5E or better recommended), 100 Ω differential 4-pair unshielded twisted pair (UTP) or shielded twisted pair (STP) balanced, complying with IEEE 802.3ab 1000Base-T

ProCurve Wireless Edge Services xl Module (J9001A)

Working in conjunction with ProCurve radio ports, the ProCurve Wireless Edge Services xl Module provides centralized wireless LAN management of advanced wireless services, enabling a resilient, highly secure, mobile, multi-service network.

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 0.86 kg (1.9 lb.)

ProCurve Redundant Wireless Services xl Module (J9003A)

The redundant module automatically adopts ProCurve radio ports if the primary ProCurve Wireless Edge Services xl Module is unavailable or should fail.

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 0.86 kg (1.9 lb.)

Services for accessories are covered under the product in which they are installed.

ProCurve Switch xl Modules and RPS

ProCurve Switch xl Access Controller Module (J8162A)

The ProCurve Switch xl Access Controller Module gives mobile users appropriate access to network services without compromising network security.

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 0.86 kg (1.9 lb.)

NEW **ProCurve Switch xl 1-Port 10-GbE X2 Module (J8988A)**

1-port 10-GbE X2 module for xl series switches

Ports
1 open 10-GbE X2 transceiver slot

Physical characteristics
Dimensions (D x W x H): 22.78 x 20.32 x 4.45 cm (8.97 x 8.0 x 1.75 in.)
Weight: 0.45 kg (1 lb.)

Environment
Operating temperature: 0°C to 40°C (32°F to 104°F)

Notes
Expected throughput is 2.5 to 7 Gbps, depending on packet size. Traffic from single MAC SA to single MAC DA will be at most 1 Gbps. The 5300xl chassis can support up to 4 modules. Two 10-GbE ports can be trunked together, but cannot include other port speeds.

ProCurve Switch gl/xl/vl Redundant Power Supply (J4839A), not pictured

Physical characteristics
Dimensions (D x W x H): 20.07 x 16.0 x 12.7 cm (7.9 x 6.3 x 5.0 in.)
Weight: 2.5 kg (5.55 lb.)

Electrical characteristics
Voltage: 100–127 VAC/200–240 VAC
Current: 8.2 A/3.8 A
Frequency range: 50/60 Hz

Notes
For additional RPS specification information, see the data sheet for the product in which the RPS is being installed.

Additional accessories

ProCurve Gigabit-SX-LC Mini-GBIC (J4858C)

ProCurve Gigabit-LX-LC Mini-GBIC (J4859C)

ProCurve Gigabit-LH-LC Mini-GBIC (J4860C)

ProCurve Gigabit 1000Base-T Mini-GBIC (J8177B)

ProCurve 600 Redundant External Power Supply (J8168A) (EPS support only for J8161A module)

ProCurve 610 External Power Supply (J8169A) (EPS support only for J8161A module)

ProCurve Wireless Services Module 12 RP License (J9002A)

Services for accessories are covered under the product in which they are installed.

For more information

To learn more about ProCurve Networking, please visit
www.procurve.eu

© 2008 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

ARM is a registered trademark of ARM Limited.

4AA1-7307EEE, February 2008

ProCurve Networking by HP